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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,951	02/08/2000	TATSUO J. CHIGIRA	B208-1076	1936

26272 7590 11/06/2003

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EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 11/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/499,951

Applicant(s)

CHIGIRA, TATSUO J.

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 9/30/2003 is entered. The rejection of claims 1 and 3-10 are maintained.
2. Claim 3 is objected to because of the following informalities: claim 3 should be read --A head-mounted display apparatus according to claim 1--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al (US 6,441,978).

3. As to claim 10, Kobayashi et al teach a head mounted display device (HMD) which includes a front frame 10M, a display part 41 (figure 4, col. 10, lines 55-56), the left and right rear frame 10L and 10R, a mount pad 2F, the hinges 10Lh and 10Rh, elastic members 10L and 10R (col. 11, lines 1-6), the temple part 2F, a forehead 2F, a viewer M (col. 11, lines 27-33), elastic force of right and left side frames (col. 11, lines 7-12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (US 6,441,978) in view of da Silva (US 5,608,808).

4. As to claims 1 and 7, Kobayashi et al teaches a head mounted display device (HMD) which includes a front frame 10M, holding member 10C (figure 4, col. 10, lines 55-56), a mount pad 2F, a head 2F, a viewer M, a display part 41; the left and right rear frame 10L and 10R are core members; the hinges 10Lh and 10Rh (col. 11, lines 27-33), elastic force of side frames (col. 11, lines 7-12).

Kobayashi et al fails to teach each of said frames comprises an elastic member and a core member longitudinally inserted in the elastic member and the thickness of the elastic member relative to the core member is preferably arranged to be thicker on the inner side of the core member. However, da Silva teaches each of said frames comprises an elastic member (20) and a core member (15) longitudinally inserted in the elastic member (20) and the thickness of the elastic member (20) relative to the core member (15) is preferably arranged to be thicker (1.0 centimeter) on the inner side of the core member (20) (see figure 1, column 3, lines 6-11 and column 3, line 56). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the elastic member (20) taught by da Silva for Kobayashi et al's side

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frames because this would be lightweight, easy to operate, unique and useful (column 1, lines 63-64 of da Silva).

As to claim 4, Kobayashi et al teaches the left and right rear frames 10L and 10R being hinged by the hinges 10Lh and 10Rh which serve as the coupling mechanisms to the main frame 10M (col. 10, lines 52-54). The hinges 10Lh and 10Rh are foldable inward.

As to claims 5, 6 and 8, Kobayashi et al teach the side frames including elastic force the left and right rear frames 10L and 10R being formed by using a plastic material among polyamide, polycarbonate having a hole communicating with said inserting hole is formed also in said elastic member as shown in figure 4 (col. 11, lines 13-17).

Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al and da Silva as applied to claims 1 and 7 above, and further in view of Chiou (US 4,993,065).

5. As to claims 3 and 9, Kobayashi et al and da Silva teach all of the claimed limitations of claims 1 and 7, except for said earphone holding members is arranged to further hold a cable connected to said display part. Chiou teaches one of earphone holding members (14) is arranged to further hold a cable (32) connected to the part (4) (see figure 4, column 3, lines 24-35). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize one of earphone holding members (14) is arranged to further hold a cable (32) connected to the part (4) taught by Chiou for Kobayashi et al's side frames because this would be comfortably positioned in the user's ears without presenting any burden thereto and which can also be easily

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replaced with new receiving means if a malfunction occurs (column 2, lines 19-22 of Chiou).

Response to Arguments

6. Applicant's arguments filed 9/30/2003 have been fully considered but they are not persuasive.

In response to applicant's argument that claims 1 and 7 recite "each of said frames comprises an elastic member and a core member longitudinally inserted in the elastic member and the thickness of the elastic member relative to the core member is preferably arranged to be thicker on the inner side of the core member," at page 6, 3rd paragraph. This argument is not persuasive because da Silva's invention teaches each of said frames comprises an elastic member (20) and a core member (15) longitudinally inserted in the elastic member (20) and the thickness of the elastic member (20) relative to the core member (15) is preferably arranged to be thicker (1.0 centimeter) on the inner side of the core member (20) (see figure 1, column 3, lines 6-11 and column 3, line 56).

In response to applicant's argument that claim 10 recites "the elastic members are arranged to be located on the outside of the display part in a state obtained when the right and left frames are folded with respect to the front frame," at page 7, lines 11-12. This argument is not persuasive because Kobayashi et al's invention teaches the left and the right hinge 110Lh and 10Rh (figure 4, lines 52-53) perform the function of folding with respect to the front frame (10M).

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For these reasons, the rejections based on Kobayashi et al, da Silva and Chiou have been maintained.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
October 30, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600